SCW COMMON CORE

105 Basic First Aid and Personal Hygiene Fundamentals

105.1 State the sequence to examine an injured person.

- Check for breathing: Lack of oxygen can lead to brain damage or death in a very few minutes.
- Check for Bleeding: Life cannot continue without an adequate volume of blood to carry oxygen to tissues.
- Check for Shock: Unless shock is prevented or treated, death may result even though the injury would not otherwise be fatal.
- If there are any signs of chemical or biological agent poisoning, you should immediately mask the casualty. If it is nerve agent poisoning, administer the antidote, using the casualty's injector/ampules.
- In a chemically contaminated area, do not expose the wounds.
- Leg fractures must be splinted before elevating the legs as a treatment for shock.

105.2 State the reason for not moving an injured person unless absolutely necessary.

- As a general rule, make your preliminary examination in the position and place you find the victim. Moving the victim before this check could gravely endanger life, especially if there are fractures skull or spine injuries.
- If the situation is such that you or the victim is in danger, you must weigh this threat against the potential damage caused by premature transportation. If you decide to move the victim, do it quickly and gently to a safe location where proper first aid can be administered.

105.3 Describe the signs, symptoms, and treatment of shock.

- Shock is a condition in which the circulation of the blood is seriously disturbed. This can cause lack of oxygen to body systems.
- Shock creates a vicious cycle; the worse it is, the worse it will become. A person going into shock may display quite a few signs and symptoms.

Signs/symptoms

The signs of shock do not always appear at the onset of the injury. The following is a list of some of those signs:

- Sweaty but cool skin (clammy skin)
- Paleness of skin restlessness or nervousness
- Thirst
- Pulse is weak and rapid
- Enlarged pupils
- Breathing is shallow and irregular
- Blotchy or bluish skin, especially around the mouth
- Nausea and/or vomiting

Treatment:
- Keep victim calm
- Try to prevent the victim from seeing the injury
- If victim is conscience and no internal injuries are evident, you should give the victim small amounts of warm water.
- If possible, place the injured person on his back on a bed, cot, or stretcher, and raise the lower end of the support about 12 inches so that the victim's feet are higher than his head.

105.4 Explain why you should not give an unconscious person anything by mouth.
- Giving an unconscious person any food or drink by mouth can cause vomiting.
- If the victim vomits, the vomited material may enter the lungs.
- Victim could choke to death.

105.5 Describe the three types of bleeding.
Capillary bleeding- bleeding is slow, the blood "oozes" from the (wound) cut
Venous bleeding- the blood is dark red or maroon, and flows in a steady stream.
Arterial bleeding- the blood is bright red and "spurts" from the wound.
ARTERIAL BLEEDING IS LIFE THREATENING AND DIFFICULT TO CONTROL.

105.6 Explain the four methods for controlling bleeding.
Direct pressure:
- The first method to use when controlling bleeding. In almost every case bleeding can be stopped by direct pressure on the wound.
- Use a sterile dressing when available and tie a knot directly over the wound. Do not tie the knot too tight and cut off circulation.

Elevation:
- Raising an injured limb above the level of the heart helps to control the bleeding. Elevation should be used together with direct pressure.
- Caution- do not elevate a limb when you suspect a fracture.
- In severe bleeding where direct pressure and elevation are not controlling the bleeding, indirect pressure may be used.
- Bleeding from a cut artery or vein can often be controlled by applying pressure to the appropriate pressure point.
- The object of the pressure is to compress the artery against the bone, this shutting off the flow of blood from the heart to the wound.

Tourniquet:
- Should only be used as a last resort for severe, life threatening bleeding that cannot be controlled by any other method.
- When using this method, be thoroughly familiar with the dangers and limitations of its use.

105.7 Discuss the major pressure points of the body.

Pressure point: a point where a main artery lies near the skin surface and over a bone or firm tissue.

- The objective of applying pressure is to compress the artery against the bone, thus shutting off the flow of blood from the heart to a wound.
- There are 11 principal pressure points on each side of the body.
  - underside of jaw- for facial bleeding
  - collar bone- for bleeding on upper arm/shoulder
  - biceps- for bleeding between middle of upper arm/elbow
  - wrist- for bleeding of hand (radial and ulnar)
  - pelvis- for bleeding from the thigh (iliac artery)
  - ankle- for bleeding from the foot
  - in front of ear- for bleeding from the temple/scalp
  - knee- for bleeding from between the knee/foot
  - hip- for bleeding from the upper thigh (femoral artery)

105.8 Describe the first aid treatment for a sucking chest wound.

- Requires immediate first aid
- A penetrating injury to the chest that produces a hole in the chest cavity, causing the lung to collapse, which prevents normal breathing functions.
- It is imperative the wound be sealed with an airtight dressing to prevent air from entering the chest cavity through the wound. Any material that will form an airtight barrier, can be used if they are large enough to cover the wound.
- If the victim's condition deteriorates when you apply the seal, **IMMEDIATELY** remove it
- After the wound is sealed and dressed, the victim should be placed on the wounded side unless there are back injuries.
- Watch the victim closely for shock and treat accordingly.
- Do not give victim anything to drink. Transport to treatment facility **IMMEDIATELY**

105.9 Describe the first aid treatment for a person with a suspected spinal injury.

- Do not move the victim unless it is absolutely essential.
- Do not bend or twist the victim's body, do not move the head forward, backward, or sideways and do not under any circumstances allow the victim to sit up

First aid procedures

- Minimize shock
- Prevent further injury to the spinal cord
- Keep the victim comfortably warm

105.10 Describe the three degrees of burns.

- Most commonly result from exposure to fire, chemicals, or electricity.
- The severity of burns depends on the depth, size and location.
- Burns are most serious when they are located on the face, neck, hands, and feet.

First degree burns
- Characterized by redness, mild swelling, and pain
- Usually the result of spending too much time in the sun, short contact with chemicals, or minor scalding with hot water or steam.

Second degree burns
- Are much deeper than first degree burns
- Appearance: very red with blisters.
- Usually the results from deep sunburns or flash burns from gasoline fires.
- Most painful type of burns because the nerve endings are still intact even though the skin is severely damaged.

Third degree burns
- The most serious burn because the burn is so deep, it requires a long time to heal and scars will form over the burn area.
- Skin may look white or charred black.
- Extends through all layers of the skin and into the flesh below the skin.

105.11 Describe the first aid treatment for the following injuries.

a. White phosphorous burn on back
- A special category of burn is that caused by contact with white phosphorus.
- First aid for this type of burn is complicated by the fact that white phosphorus particles ignite upon contact with air.

Treatment
- Partially embedded particles must be continuously flushed with water while the first aid provider removes them with whatever tools are available.
- Deeply embedded particles that cannot be removed must be covered with a saline soaked dressing.

b. Chemical burn on arm
- Flush the area immediately with a lot of cool running water for 5 to 10 minutes to wash away any chemicals.
- Remove clothing and jewelry from the victim on which chemicals have spilled.
- Flush again with water and gently pat it dry with a sterile gauze. Do not rub the area.
- Transport the victim to a medical facility.

Warning
- **Do not** attempt to neutralize any chemical unless it is known exactly what it is and what substance will effectively neutralize it.

alkali burns caused by dry lime
- Mixing water and lime creates a very corrosive substance. Dry lime should be removed by brushing the material from the skin and clothing unless massive amounts of water are available for rapid and complete flushing.

Acid burns caused by carbolic acid
- Wash the affected area with alcohol because carbolic acid is not water-soluble. Then wash the area with large quantities of water.
- If alcohol is not available, flushing with water is better than no treatment at all

c. Flash burn to eyes

- Burns caused by a nuclear explosion are divided into two classes: direct and indirect
- Direct burns, usually called flash burns, are the result of thermal, infrared radiation emitted by a nuclear explosion.
- Indirect burns are the result of fires caused by the explosion.

d. Chemical burn to eyes

Symptoms

- Blindness may persist for 20 to 30 minutes
- Eyes are irritated, like having sand in the eyes

Treatment

- Apply cold compress to the affected area. Transport victim to the nearest medical treatment facility.

105.12 Describe the symptoms and treatment of :

a. Heat stroke

Symptom

- Headache, nauseam dizziness, or weakness
- Breathing may be deep and rapid and change to shallow and almost absent
- Flushed, very dry and hot skin, constricted pupils and a fast, strong pulse

Treatment

- Heat stroke is a true life or death emergency
- The longer the victim is to suffer the more likely the victim is to suffer irreversible body and brain damage or death
- The main objective is to get the body temperature down as quickly as possible
  - Get the victim to a medical treatment facility as soon as possible
  - Cooling measures must be continued during transport

b. Heat exhaustion

- The most common heat related condition resulting from prolonged exposure to hot conditions.
- Heat exhaustion involves a serious disturbance of blood flow to the brain, heart and lungs

Symptoms

- Victim may appear ashen gray; skin will be cold, moist, clammy, normal or subnormal temperature.
- Pupils may be enlarged
- Victim may experience symptoms such as weakness, fatigue, headache, loss of appetite, and nausea.

Treatment

- Loosen clothing and apply cool wet cloths to the head, armpits, groin, and ankles.
- Do not chill the victim

- If the victim is conscious, a solution of on teaspoon of salt dissolved in a quart of cool water should be given.
- Transport the victim to a medical facility as soon as possible.
- Care for the victim as if in shock
- Move the victim to an air-conditioned space if possible.

c. Cramps
- Heat cramps usually affect people who work in hot environments or who engage in strenuous exercise without acclimating themselves to the conditions.
- May result from drinking ice water or other cold drinks too quickly or in too large a quantity after exercise.

Symptoms
- Excessive sweating which can result in painful cramps in the muscles of the abdomen, legs, and arms
- Muscle spasms caused by heat cramps usually last only a few minutes

Treatment
- Move to a cool place
- Give plenty of water to drink
- Gently massage muscles to relieve the spasms
- If symptoms do not improve treat for heat exhaustion and transport to a medical facility

105.13 Explain how heat casualties in the field may be prevented.
- It's the commands responsibility
- Prevention centers on water and salt replacement
- Do not consume alcoholic beverages

105.14 Describe frostbite and immersion foot.

a. Frostbite
- Frostbite occurs when ice crystals form in the skin or deeper tissues after sustained exposure to a temperature of 32 degrees F or lower
- Depending upon the temperature, altitude, and wind speed, the exposure time necessary to produce frostbite varies from a few minutes to several hours.
- The areas most commonly affected are the face and extremities
- Symptoms
- Affected skin reddens ant there is an uncomfortable coldness.
- Area becomes numb due to reduced circulation
- Ice crystals form, the frozen extremity appears white, yellow-white, or blotchy blue and white
- The surface of the skin feels hard, but the underlying tissue is soft
- Warning
- Never rub frostbitten area
- Never heat a frostbitten are with open fire.

b. Superficial frostbite
- The skin and region just below the skin are affected
- Surface feels hard but the underlying tissue is soft, allowing it to move over body ridges

• Treatment
- Thaw with body heat or warm water
  - Hands: Place hands under the armpits, against the abdomen, or between the thighs
  - Feet: Feet can be warmed by using the armpit or abdomen of a buddy
  - Other areas: Warm with warm water immersion, skin to skin contact, or warm-water bottles

• Immersion foot, which may also occur in the hands, is a cold injury resulting from prolonged exposure to wet, cold temperatures just above freezing
  - It is often associated with limited motion of the extremities and water-soaked clothing
  - The temperature does not need to be below 32 degrees F to cause injury

• Symptoms
  - Early stages, the feet and toes turn pale and feel cold, numb and stiff
  - Walking becomes difficult
  - The feet will swell and become painful
  - If not treated the flesh dies and amputation of the extremity may be necessary

• Treatment
  - Do not rub or massage the injured part
  - Remove wet clothing
  - Do not rupture blisters or apply salves or ointments
  - Clean with soap and water, dry thoroughly, elevate and keep extremity exposed to dry air
  - Evacuate by litter

105.15 Describe the signs and symptoms when general loss of body heat occurs to a person exposed to extreme cold (hypothermia).

Hypothermia is cooling of the entire body. It can be caused by continued exposure to low or rapidly dropping temperatures, cold moisture, snow, and/or ice

• Symptoms
  - Several stages of progressive shivering
  - Feelings of sluggishness, drowsiness and confusion
  - Victim may become unconscious
  - Victim may go into shock
  - The lower extremities may freeze

• Treatment
  - Victim must be warmed quickly
  - Move victim to warmth

- In the field
  - Place nude victim in a sleeping bag with two volunteers stripped to their underwear to provide body to body heat transfer
  - This WILL SAVE LIVES in the field
  - **HYPOTHERMIA IS A MEDICAL EMERGENCY**
  - **THE VICTIM NEEDS HEAT!**

105.16 Explain how cold injuries can be prevented.

- Cold weather injuries can be prevented by becoming accustomed to a cold climate, by wearing warm layered clothing, and by maintaining good discipline and training
- Wearing dry gloves, stocking cap well insulated boots, and keeping the body well hydrated will help the body maintain its normal temperature.

105.17 Describe the symptoms and first aid treatment for a joint dislocation.

- Description
  - A bone that has been forcibly displaced from its joint is dislocated
  - Dislocation are usually caused by falls or blows but are occasionally caused by muscle exertion. The joints that are most frequently dislocated are the shoulder, hip, finger, and jaw
- Symptoms
  - Rapid swelling and discoloration
  - Loss of ability to use the joint
  - Sever pain and muscle spasms
  - Possible numbness
  - Possible loss of pulse below the joint
  - Shock
- Treatment
  - Loosen the clothing around the injured part
  - Place the victim in the most comfortable position possible
  - Support the injured part by means of a sling, pillow, bandages, splints, or any other device that will make the victim comfortable
  - Threat the victim for shock
  - Get medical help as soon as possible

105.18 Explain when and why a cold pack or heat pad would be used on a sprain.

- Treat all sprains as fractures until ruled out by X-rays
- Apply cod packs for the first 24 to 48 hours to reduce swelling and to control internal hemorrhage
- Apply a snug, smooth, figure eight bandage to control swelling and to provide immobilization
- After the swelling stops moist heat can be applied for short periods (15 to 30 minutes) to promote healing and reduce swelling

105.19 Describe the procedure for removing ticks.

- The best method for removing ticks is to coat them with petroleum jelly, baking powder paste, or clear nail polish
- The tick should be pulled off with a pair of tweezers or one's fingers
- Care should be taken not to crush the tick or break off the head or embedded mouth parts while still in the skin

105.20 Describe the first aid treatment for snakebites.

- The most important first aid treatment for venomous snakebites is reducing the circulation of blood through the bite area.
- This will delay absorption of the venom, prevent aggravation of the local wound, and maintain the victim's vital signs
- Wrap a constricting band 2 to 3 inches above the fang marks, or above the nearest joint, but away from the swelling
- A second constricting band should be placed 2 to 3 inches below the wound
- Feel the victim's pulse below the constructing bands to keep ahead of the swelling
- If the victim can not reach a medical facility within 30 minutes, and if there are definite signs of poisoning, use a sterile knife blade to make an incision about ½" long and ¼" deep lengthwise over each fang mark
- Apply suction cups to help remove injected venom
- Suction by mouth is recommended only as a last resort
- The human mouth contains so many bacteria that the bite could become infected
- Incision and suction more than 30 minutes after the bite is not recommended
- Treat for shock
- Use a splint to immobilize the victim's affected extremity, keeping the involved area at or below the level of the heart
- Cover the wound to prevent further contamination
- Telephone the nearest medical facility so proper anti-venom can be made available
- Transport the victim (and the dead snake) to a medical facility as soon as possible.

105.21 Describe the first aid treatment for fractures.

- If there is any possibility that a fracture has been sustained, treat the injury as a fracture until an X-ray can be made
- Rough handling of the victim may convert a closed fracture into an open fracture, increase the severity of shock, or cause extensive damage to the blood vessels, nerves, muscles, and other tissues around the broken bone.
- Do not move the victim until the injured part has been splinted
- Treat for shock
- When a long bone in the are or leg is fractured, the limb should be carefully straightened so that splints can be applied unless it appears that further damage will be caused
- Never apply force or traction

- Apply splints. If the victim is to be transported a short distance, or treatment by a medical officer will not be delayed, it is best to leave the clothing on and place emergency splinting over it
- If the fracture is an open fracture you must take care of the wound before you can deal with the fracture

105.22 Describe how to reinforce a battle dressing.

- Battle dressings may be reinforced by applying additional sterile dressings over the battle dressing and covering the entire dressing with an elastic bandage

105.23 Explain the following methods for carrying a casualty:

- A casualty may be transported by using one-man or two-man carries
- The two-man carries should be used whenever possible, as they provided more comfort to the casualty, are less likely to aggravate the injury, and are less tiring to the carriers
- The particular carry selected should be the one less likely to aggravate the casualty‘s injury

a. Fireman’s carry
b. One and two man supporting carry
c. One and two man arms carry
d. One and two man saddle back carry
e. Pack-strap carry
f. Back lift and carry
g. Pistol-belt carry
h. Neck drag
i. Four-hand (packsaddle) carry
j. Four-hand arms carry

105.24 Explain the importance of personal hygiene and cite examples.

- Because of close living accommodations in the field, personal hygiene is extremely important
- Disease and sickness can spread rapidly and affect an entire battalion in a short period
    - Good practices
    - Daily bath or shower prevents body odor and is absolutely necessary for maintaining cleanliness and preventing common skin diseases
    - Using medicated powders and deodorants helps keep the skin dry
    - Socks and underwear should be changed daily
    - The importance of washing you hands at appropriate times can not be overemphasized

105.25 Explain three methods of purifying water in the field.

- Boiling
- Used when disinfecting compounds are not available. To purify a canteen of water by boiling, follow the steps listed below:
  - Boil the water at a rolling boil for at least 15 – 20 seconds
  - Let the water cool before drinking it. Once the water has cooled, it must be consumed
- Iodine Tablets
- Check tablets for physical change. If the tablets are stuck together, crumbled, or have a color other than steel gray, do not use them
- Fill canteen with the cleanest, clearest water available.
- Add on iodine per 1 quart canteen of clear water, 2 tablets if the water is cloudy
- Place cap loosely and wait 5 minutes
- Shake canteen, allowing leakage to rinse the threads around the neck of the canteen
- Tighten the cap and wait an additional 20 minutes before using the water for any purpose
- Calcium hypochlorite ampules
- Fill the canteen with the cleanest, clearest water available, leaving an air space of at least 1" below the neck of the canteen
- Add one ampule of calcium hypochlorite to a canteen cup half full of water; stir with a clean stick until power has dissolved
- Fill the canteen cap half full of the solution in the cup, and add it to the water in the canteen, place the cap on the canteen and shake it thoroughly
- Loosen the cap slightly; invert the canteen to allow the treated water to leak onto the threads around the canteen neck
- Tighten the cap and wait at least 30 minutes before using the water